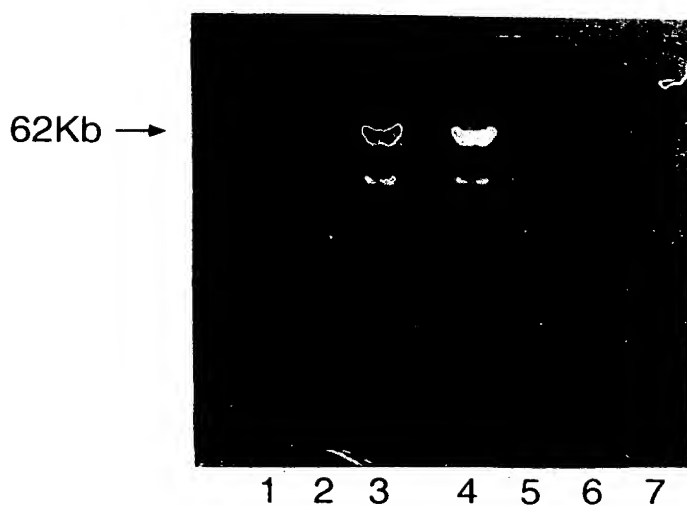
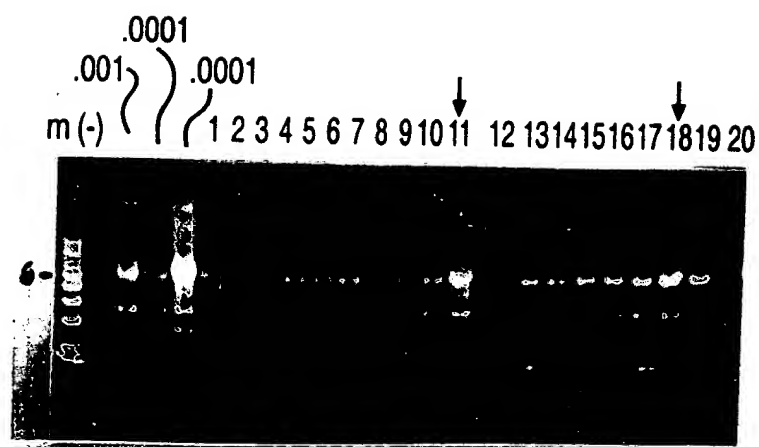


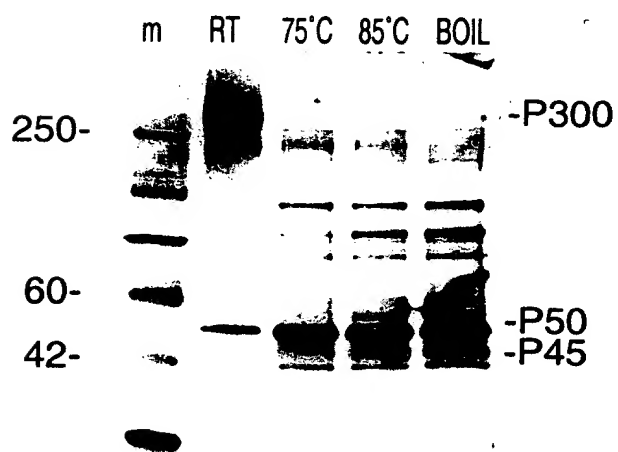
**FIG. 1**



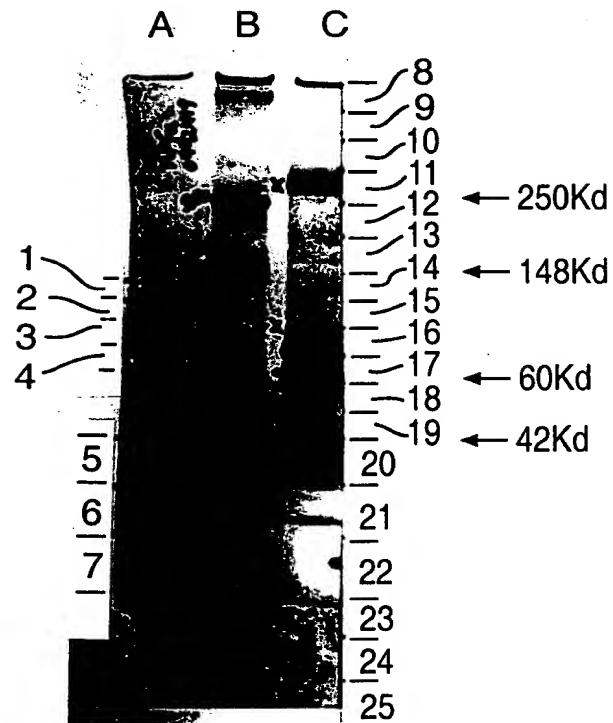
**FIG. 2**



**FIG. 3**

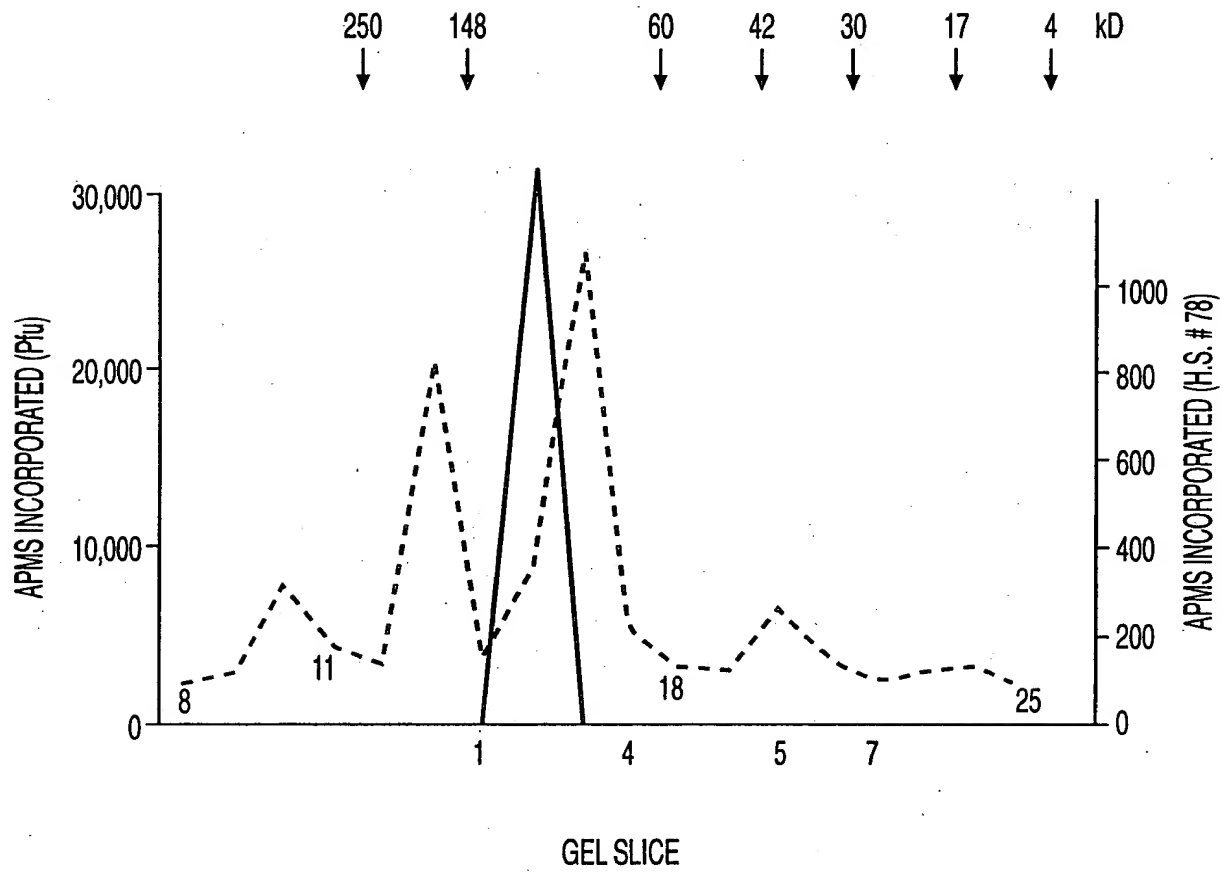


**FIG. 7**

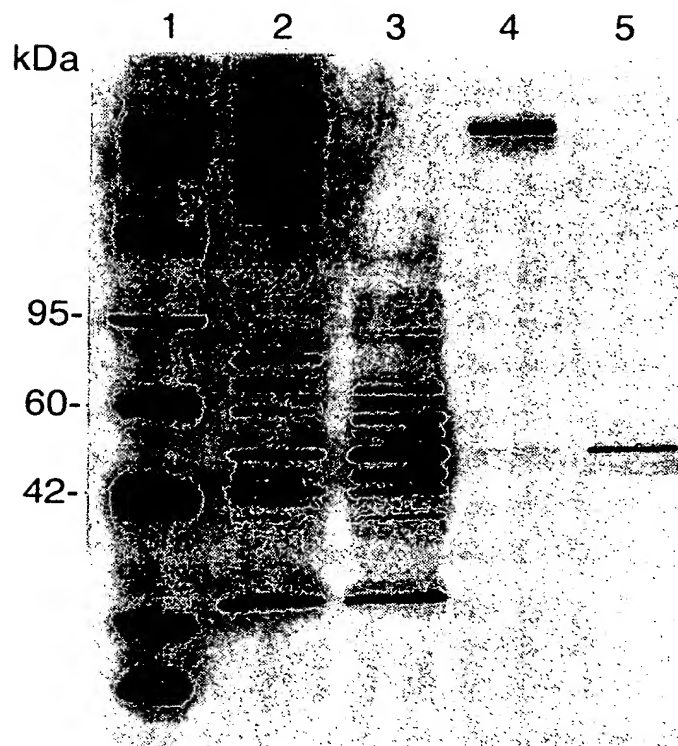


**FIG. 4**

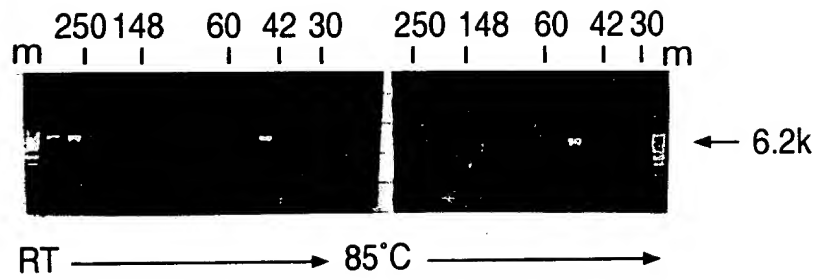
REPLACEMENT SHEET



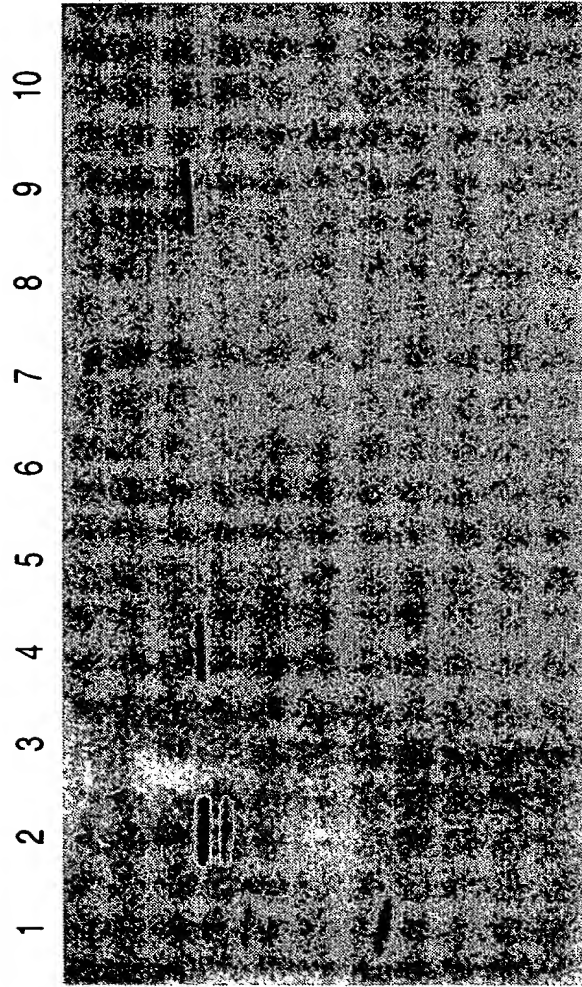
**FIG. 5**



**FIG. 6**



**FIG. 8**



**FIG. 9**



**FIG. 10**

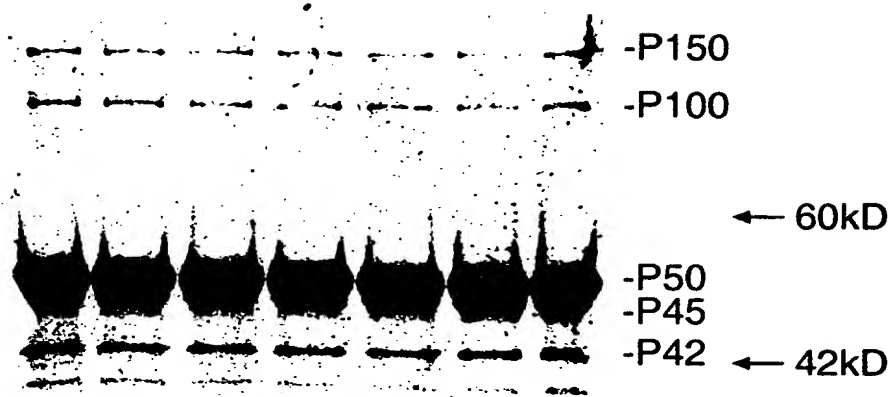




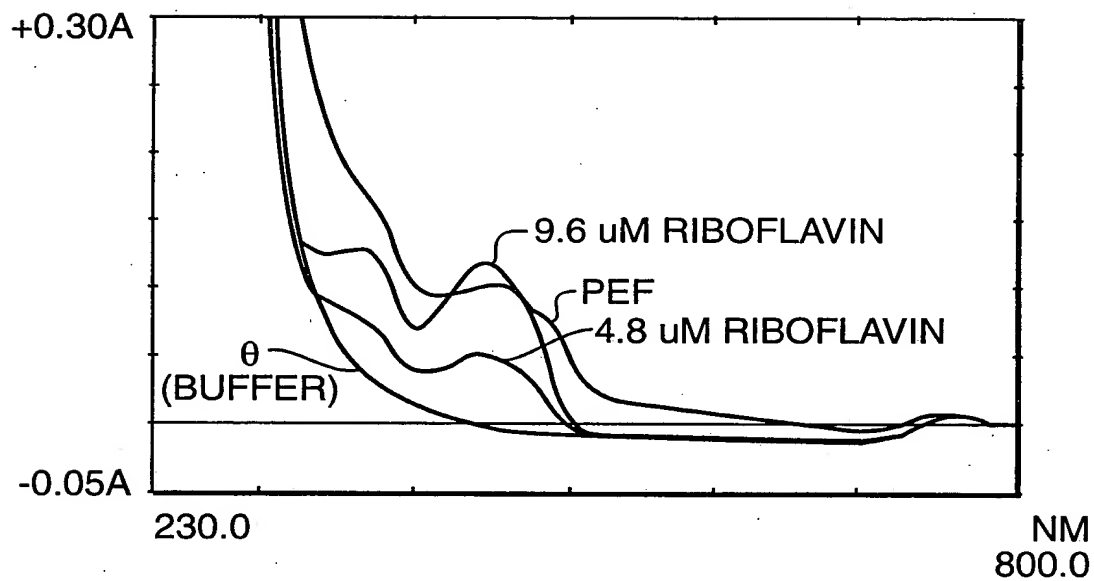
**FIG. 11A**



**FIG. 11B**



**FIG. 12**



**FIG. 13**

PEF LOT 52				PEF LOT 49				CLONE 1				CLONE 23			
NONE	7	0.7	0.2	7	0.7	0.2		1 ul (1/10)	1 ul	5 ul		1 ul (1/10)	1 ul	5 ul	

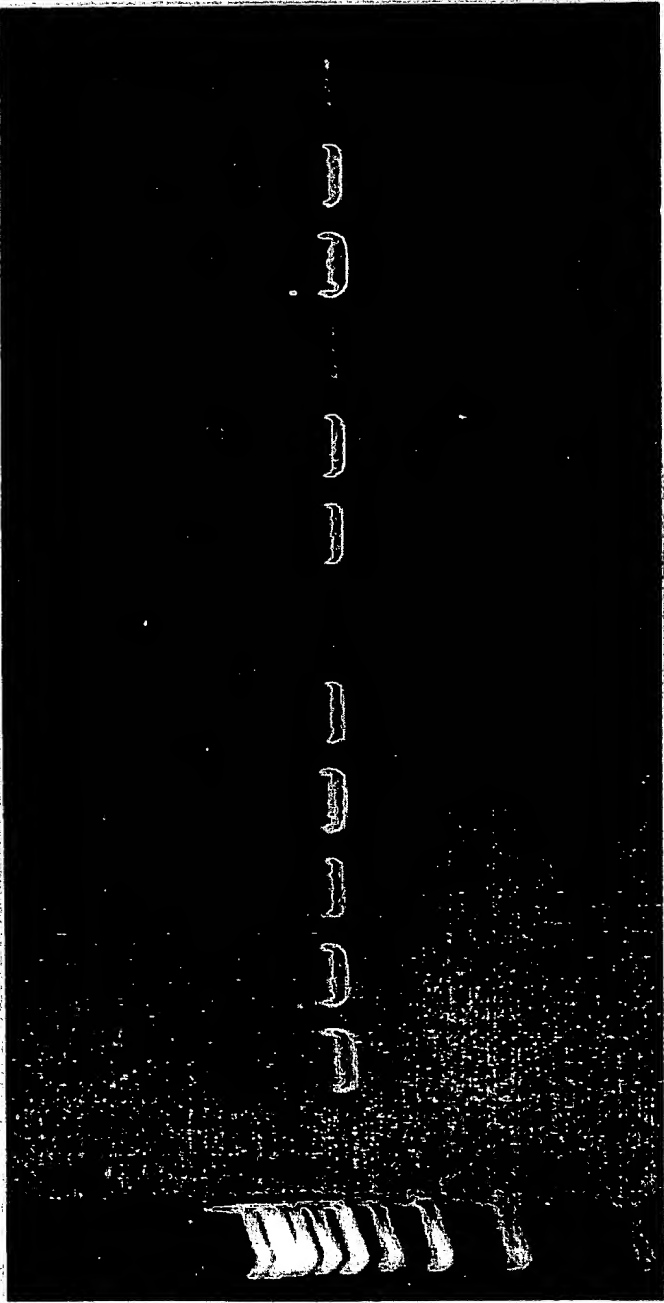
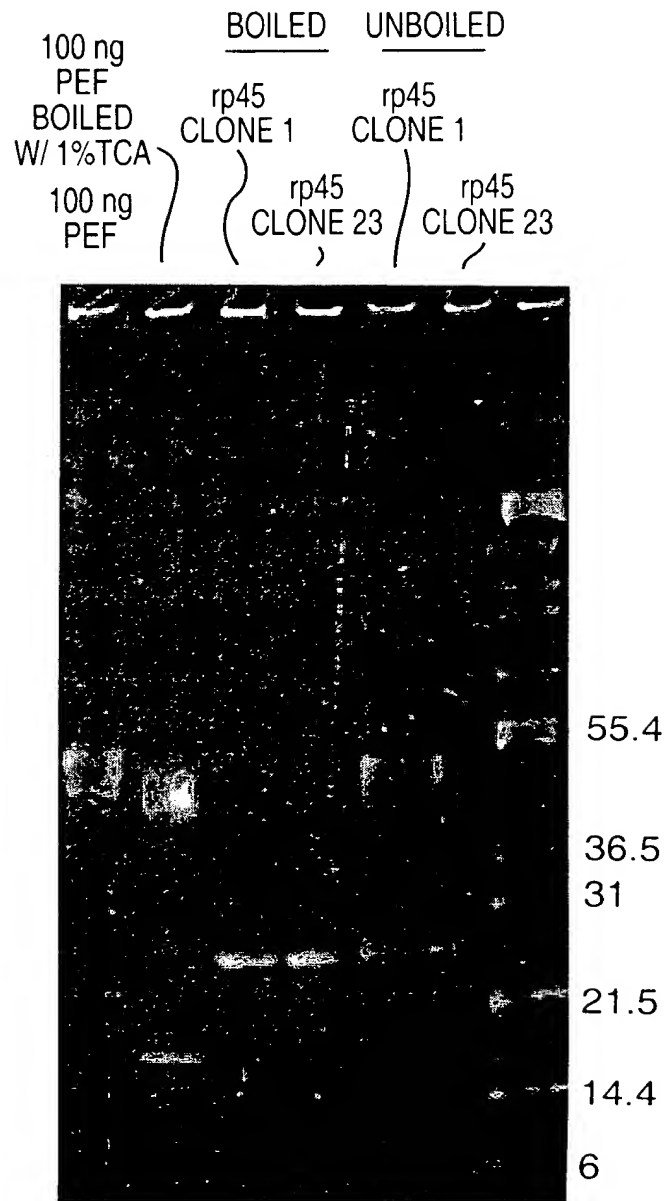


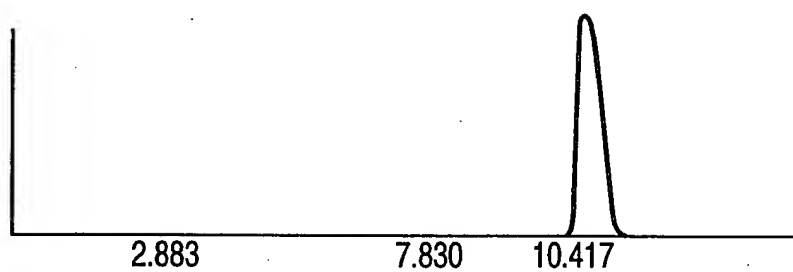
FIG. 14

# REPLACEMENT SHEET

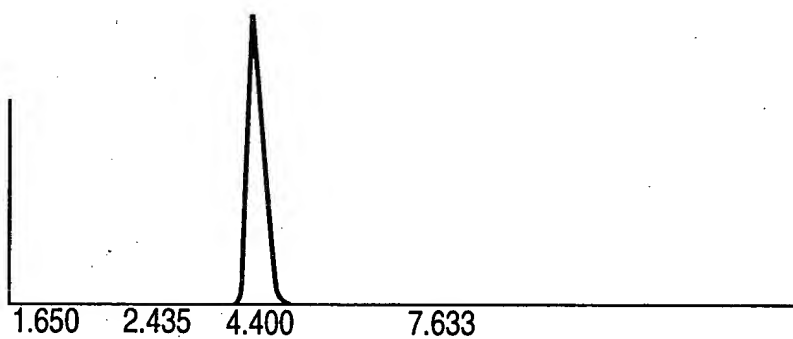


**FIG. 15**

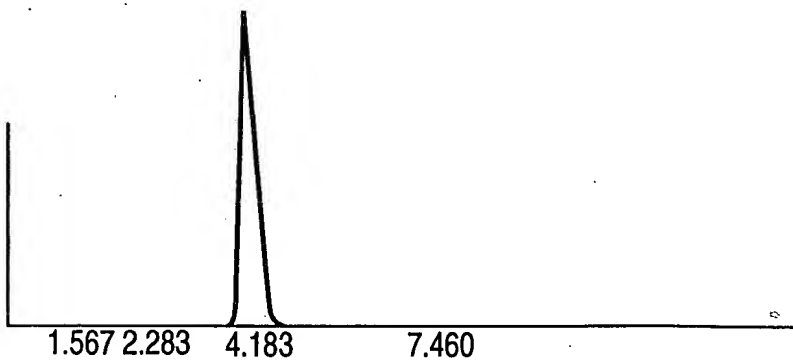
REPLACEMENT SHEET



**FIG. 16A**

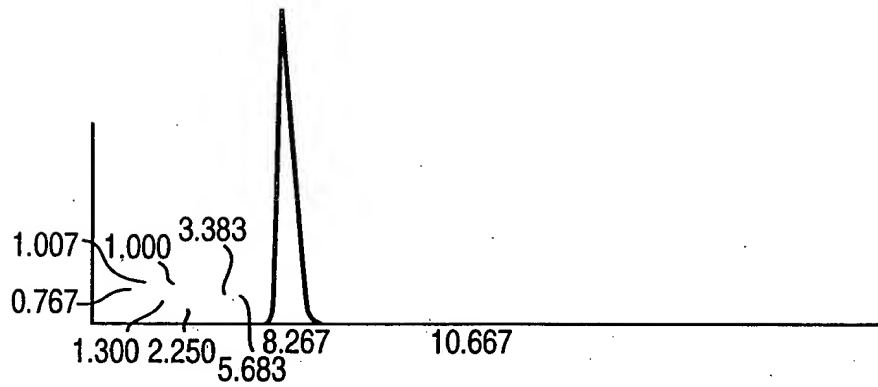


**FIG. 16B**

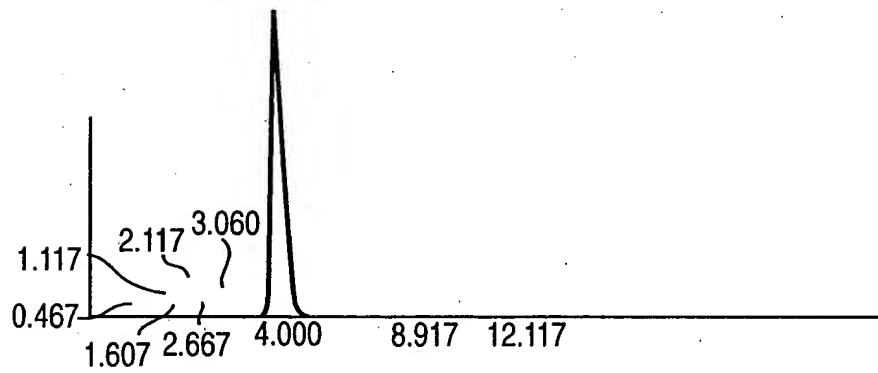


**FIG. 16C**

REPLACEMENT SHEET

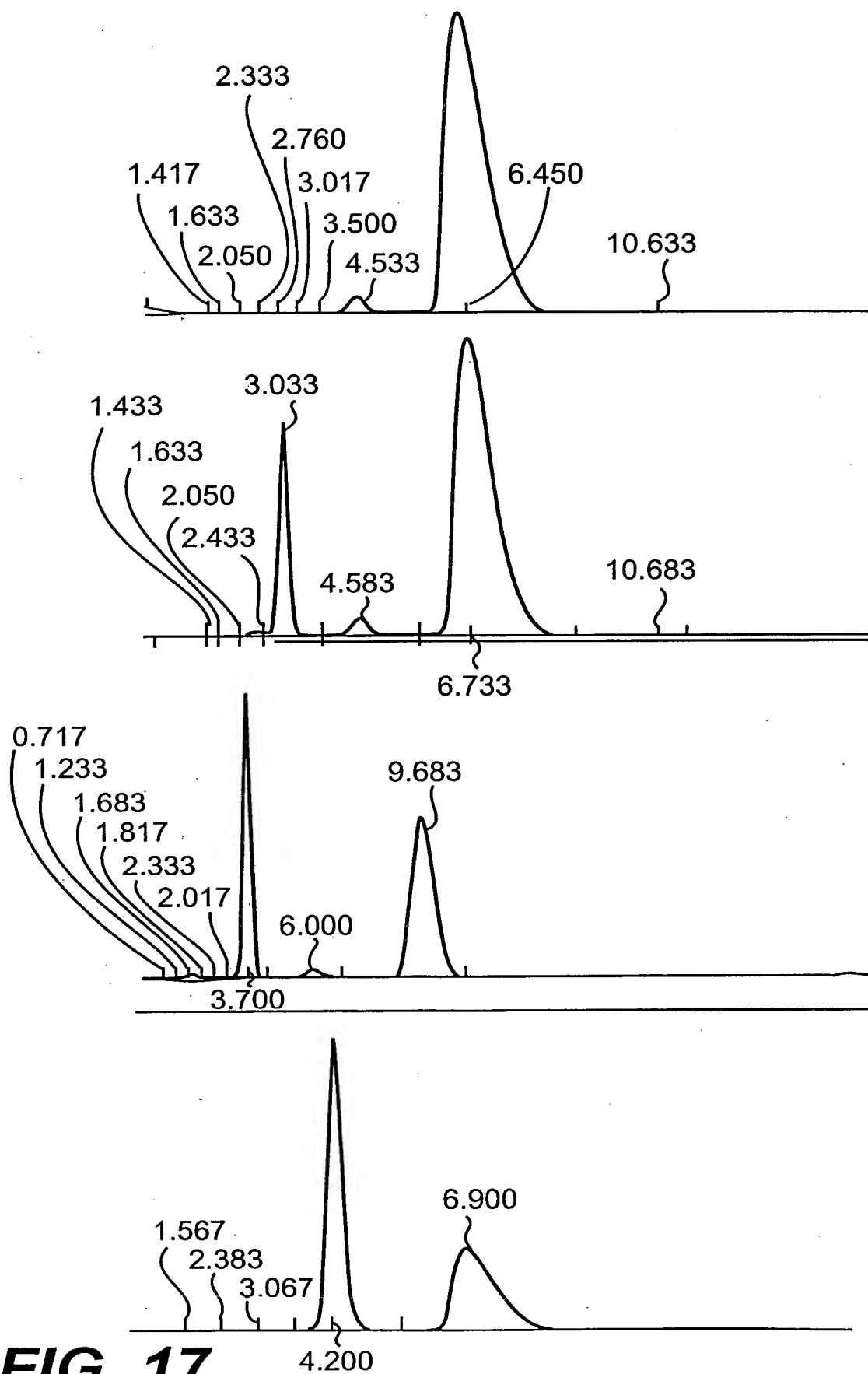


**FIG. 16D**



**FIG. 16E**

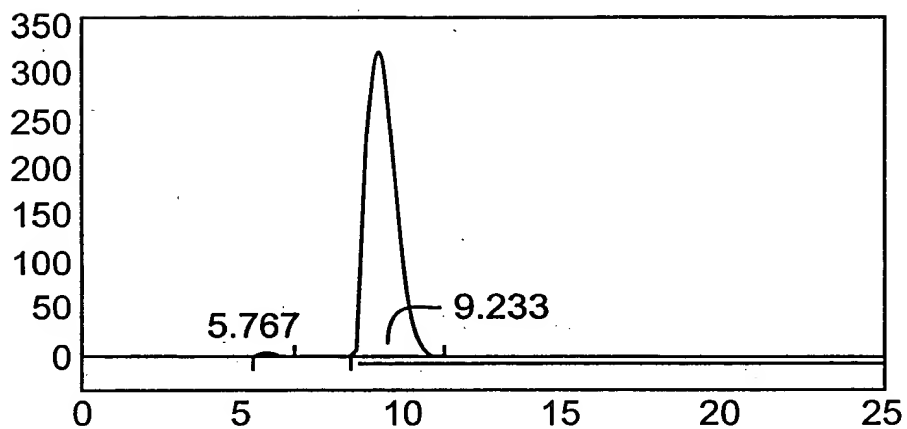
# REPLACEMENT SHEET



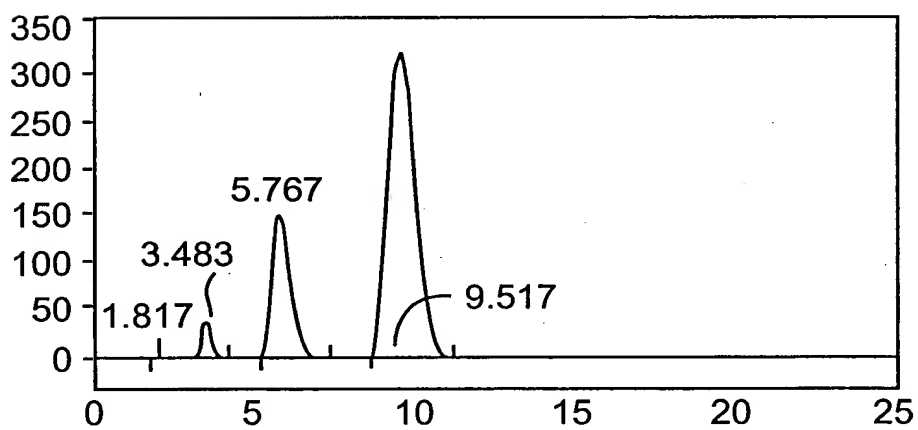
**FIG. 17**



REPLACEMENT SHEET

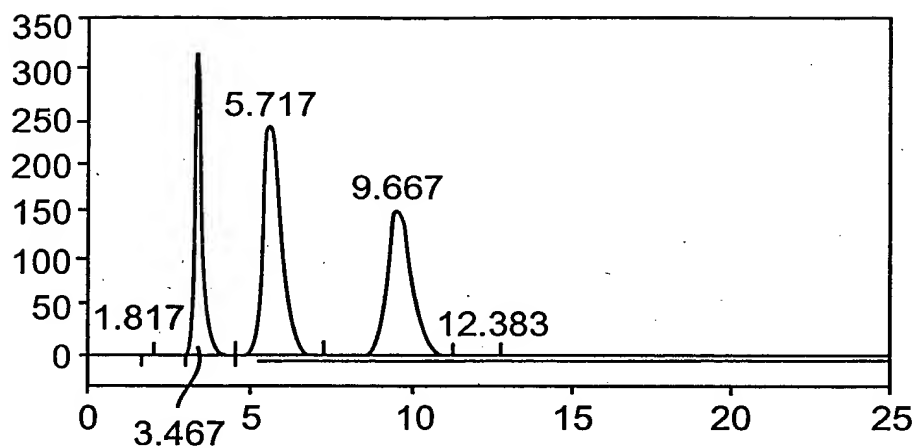


**FIG. 18A**

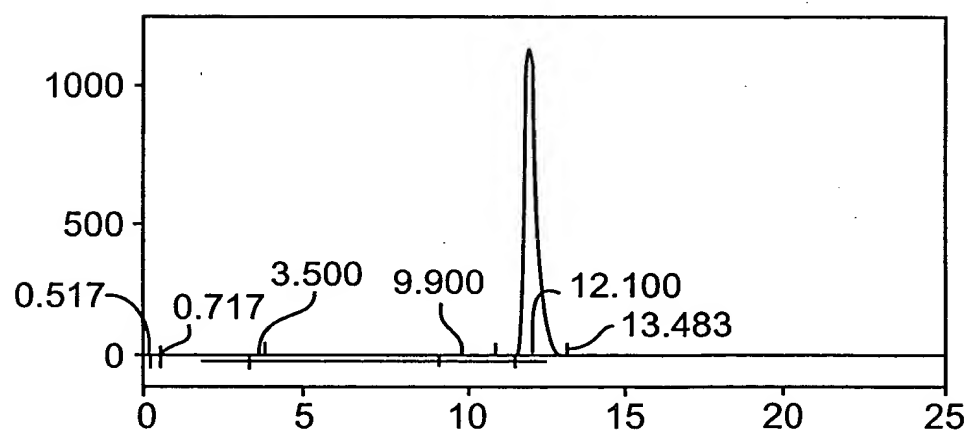


**FIG. 18B**

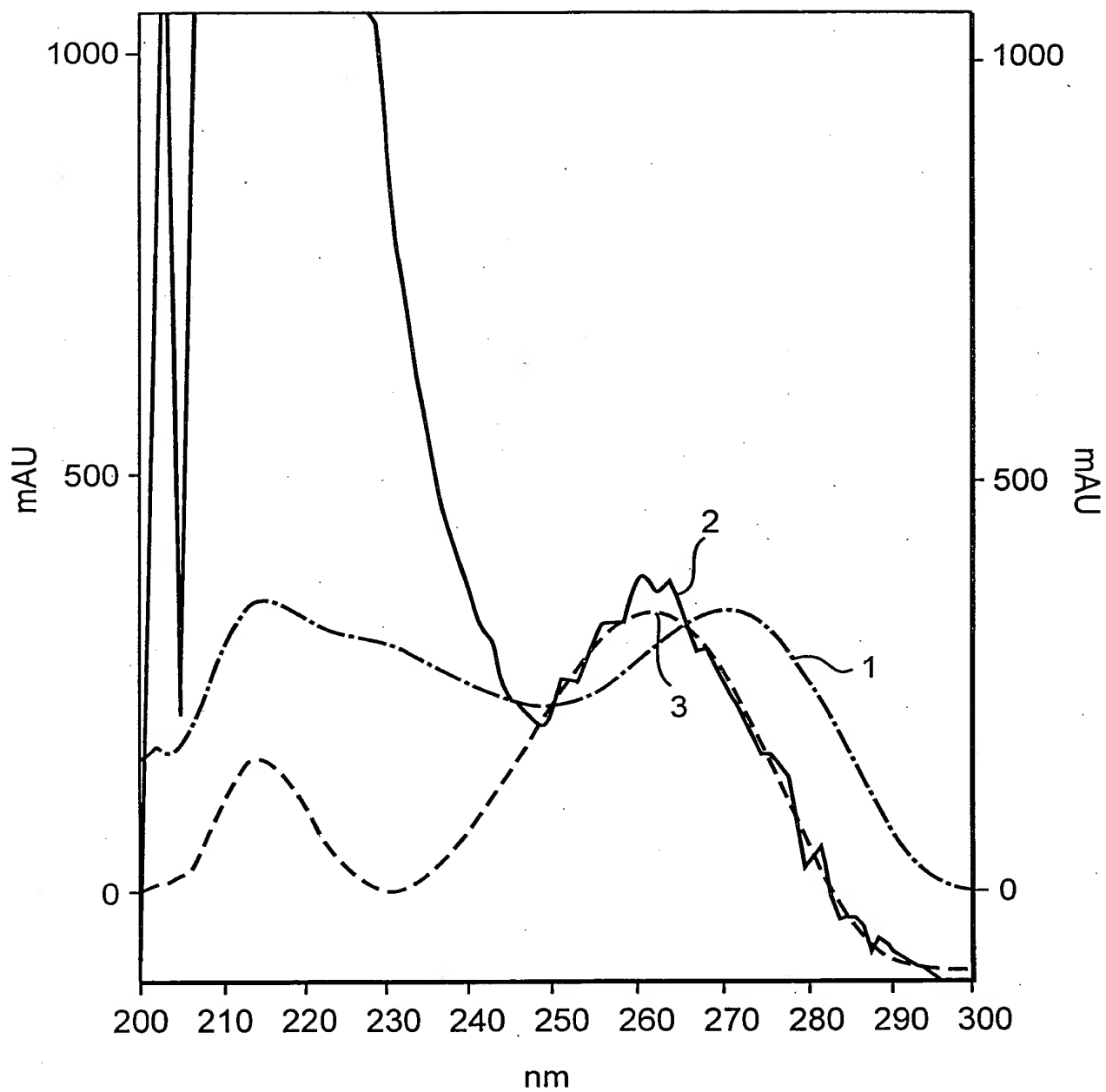
REPLACEMENT SHEET



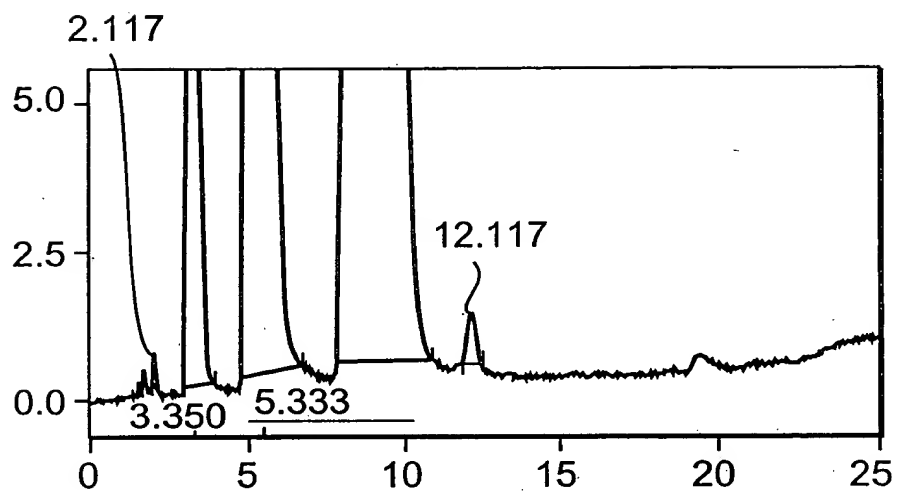
**FIG. 18C**



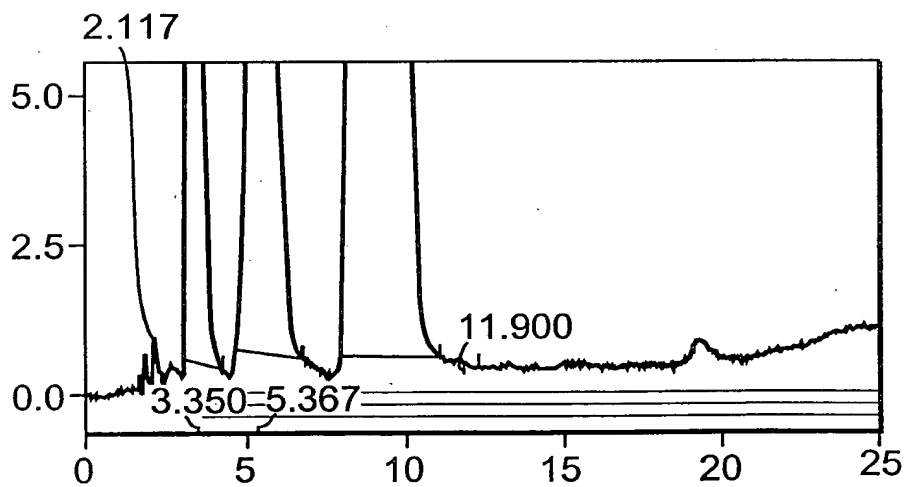
**FIG. 18D**

**FIG. 19**

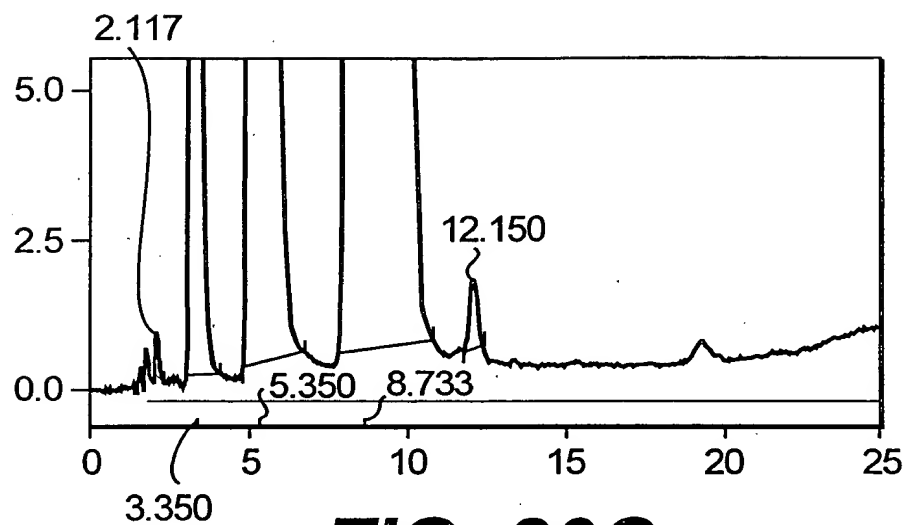
REPLACEMENT SHEET



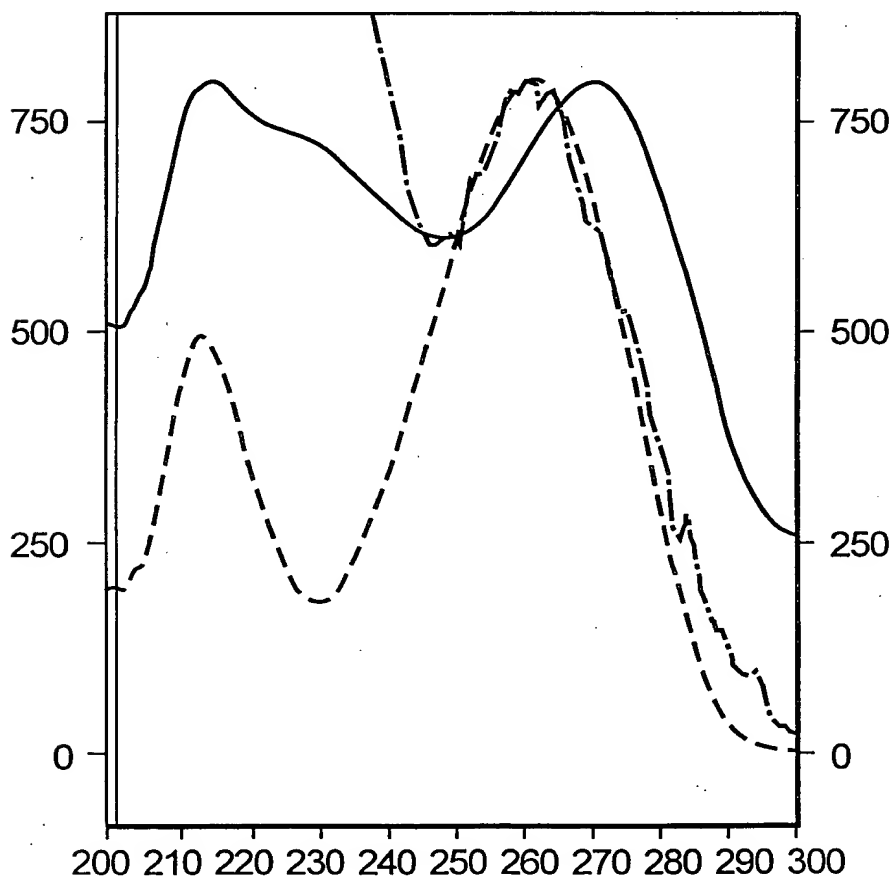
**FIG. 20A**



**FIG. 20B**

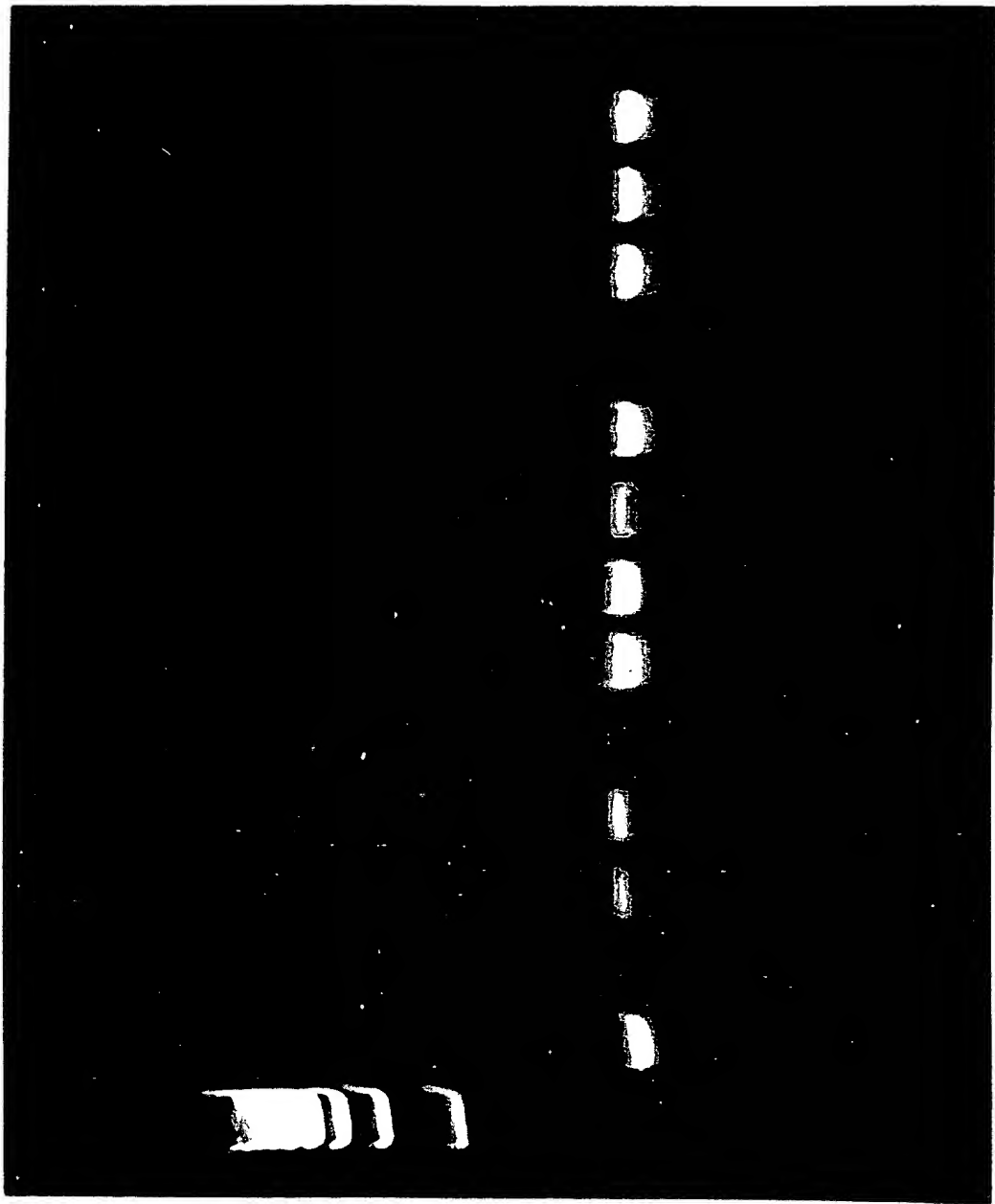


**FIG. 20C**



**FIG. 20D**

1 2 3 4 5 6 7 8 9 10 11 12 13



**FIG. 21**

Pfu Pol			Pfu Pol + PEF	Taq Pol
NO OLIGO	Pmole CONTROL OLIGO	Pmole dU OLIGO	Pmole dU OLIGO	Pmole dU OLIGO
PEF - +	16 8 1.6 0.8 0.16 M 0.08 } 0.016	M 16 8 1.6 0.8 0.16 0.08 } 0.016	16 8 1.6 0.8 0.16 0.08 } 0.016	16 8 1.6 0.8 } 0.16 0.08

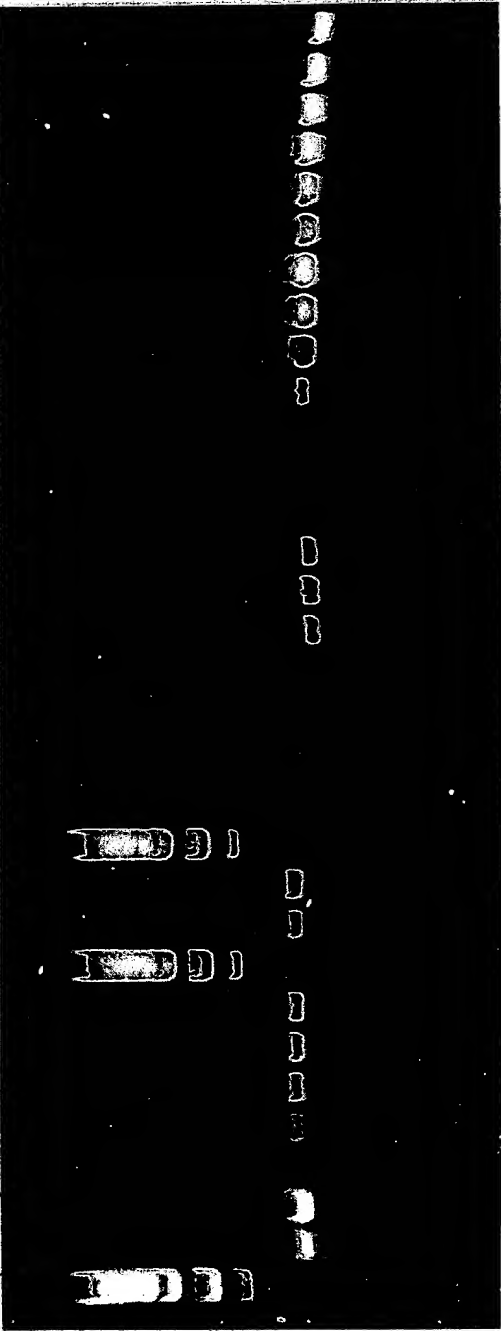
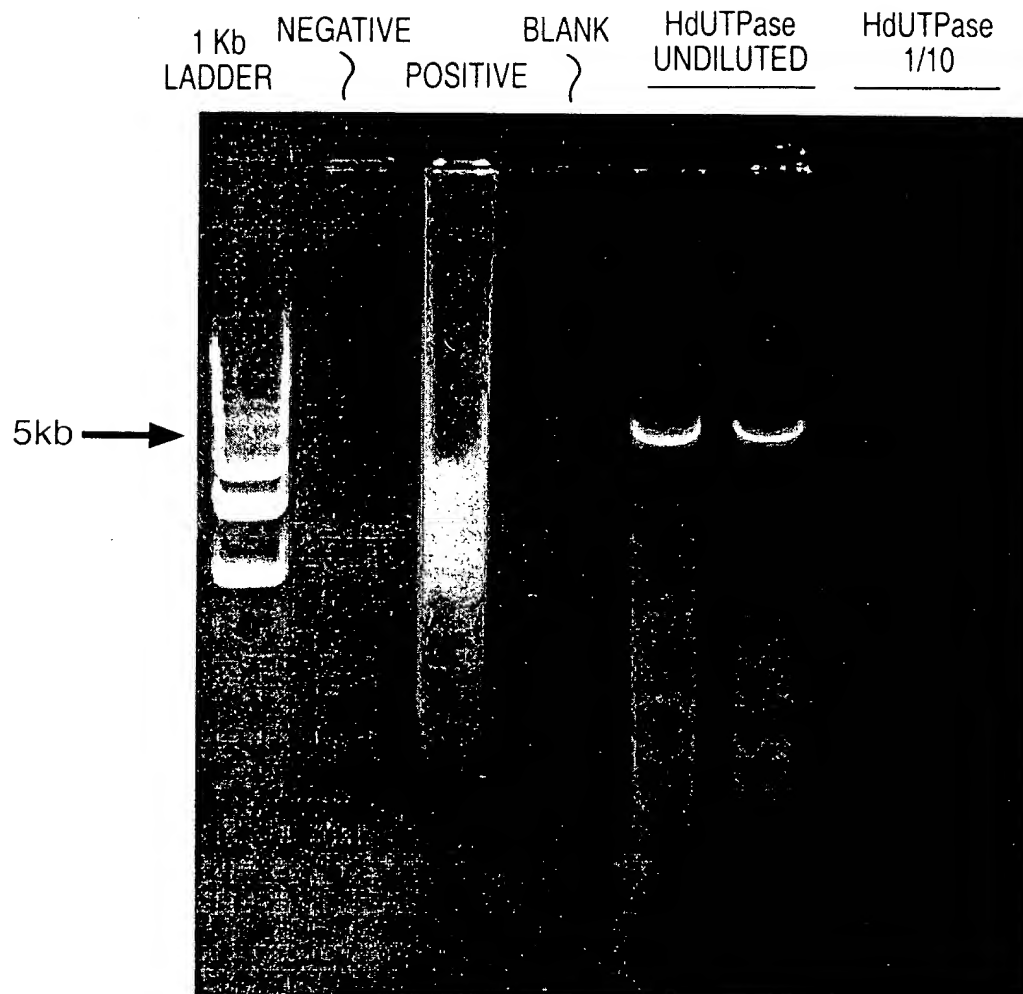


FIG. 22

REPLACEMENT SHEET



**FIG. 23**



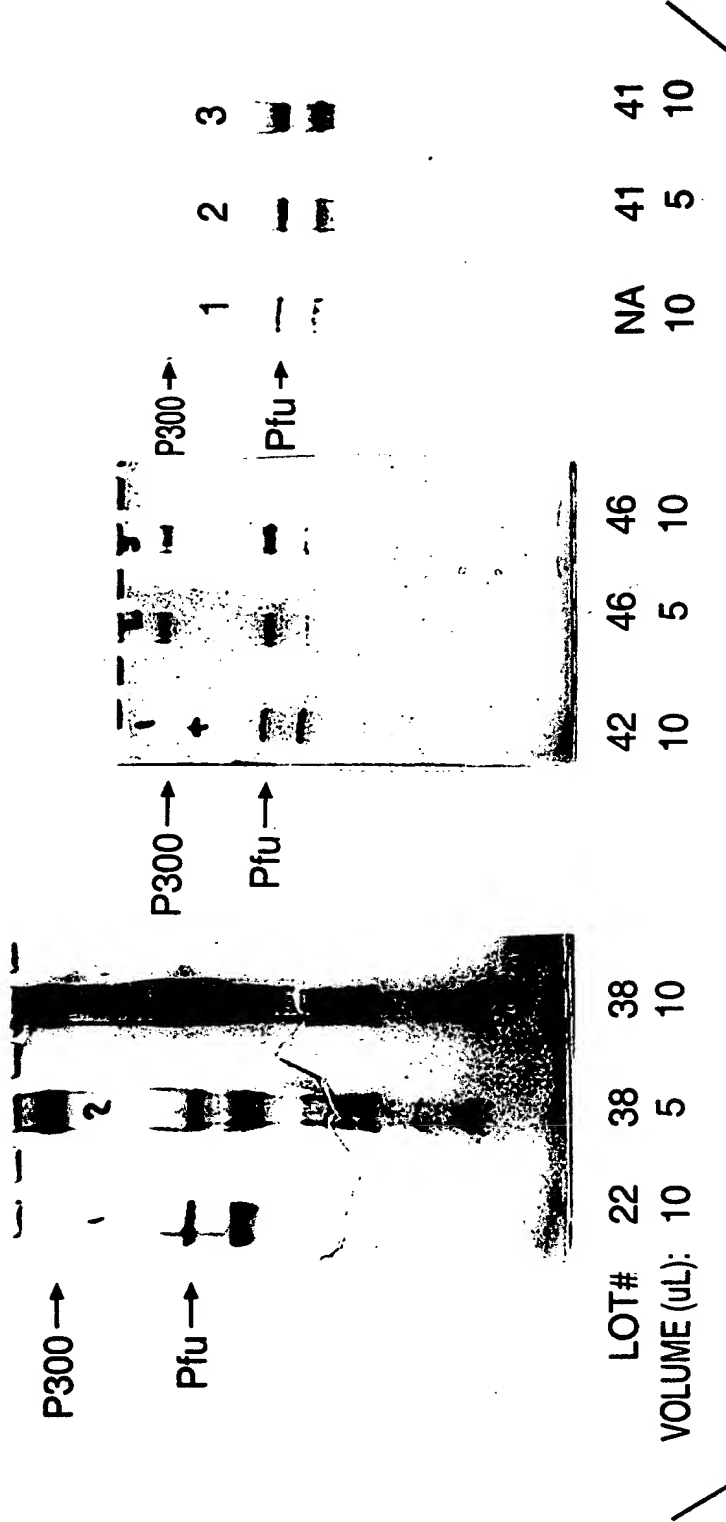
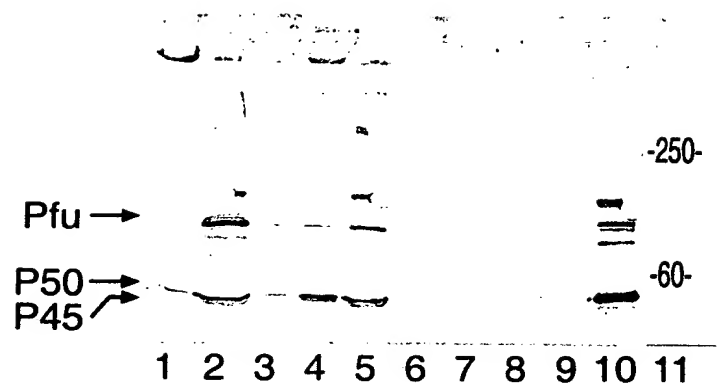
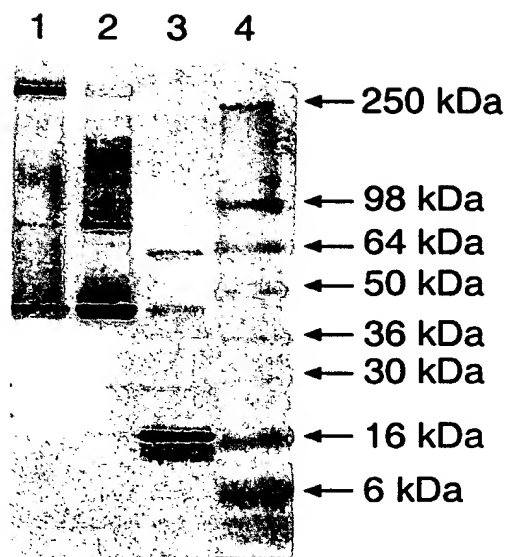


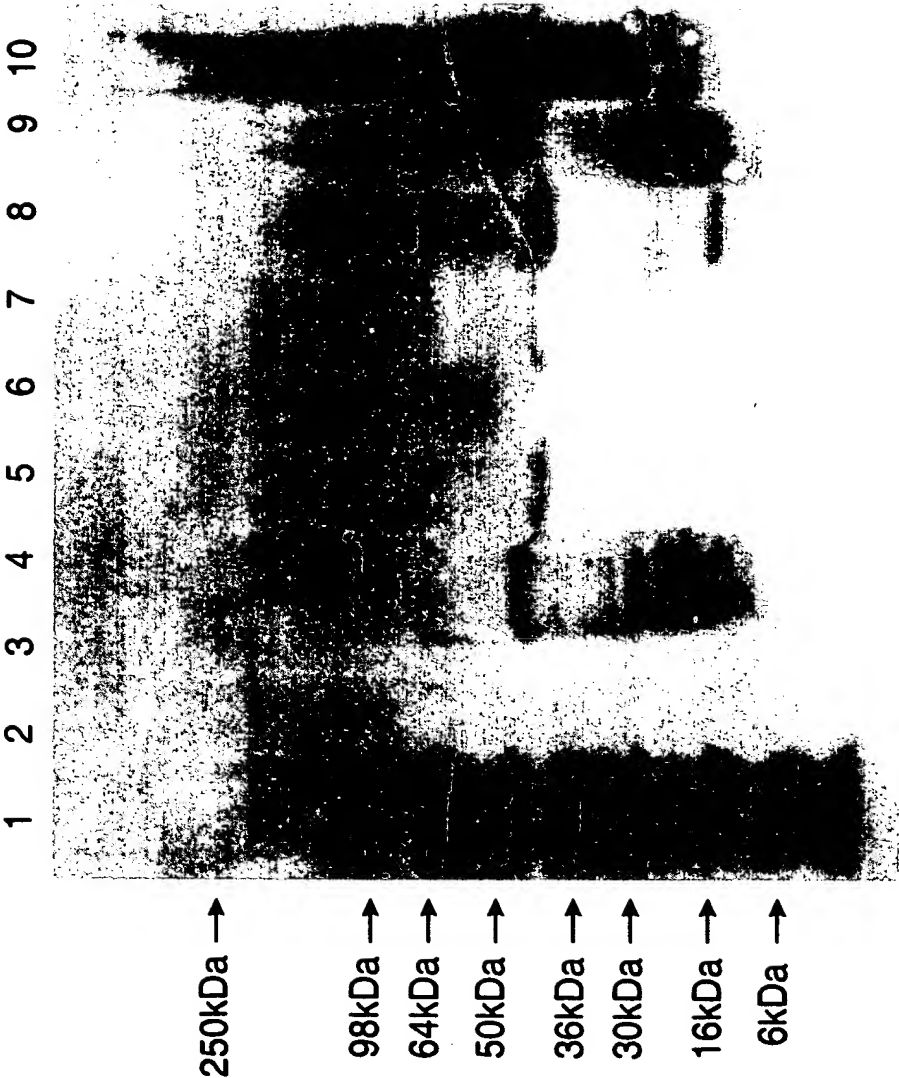
FIG. 24



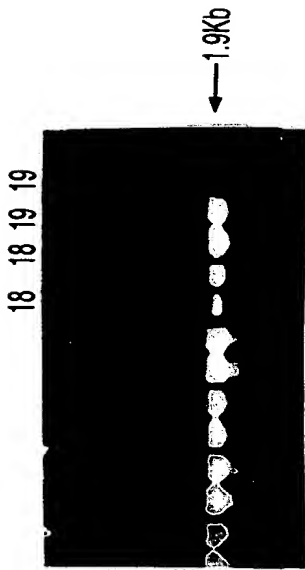
**FIG. 25**



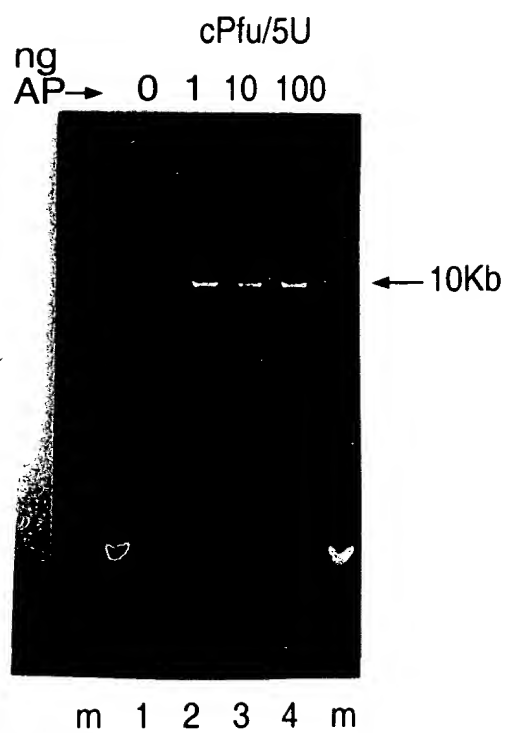
**FIG. 26**



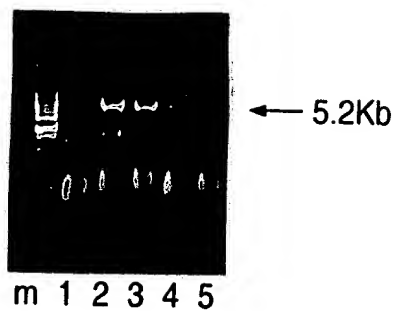
**FIG. 27**



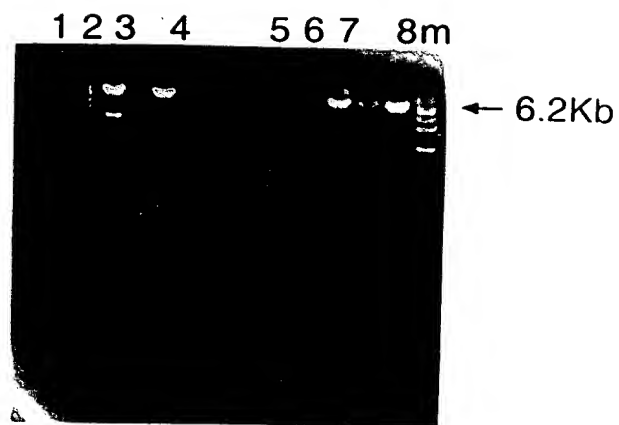
**FIG. 28**



**FIG. 29**



***FIG. 30***



**FIG. 31**



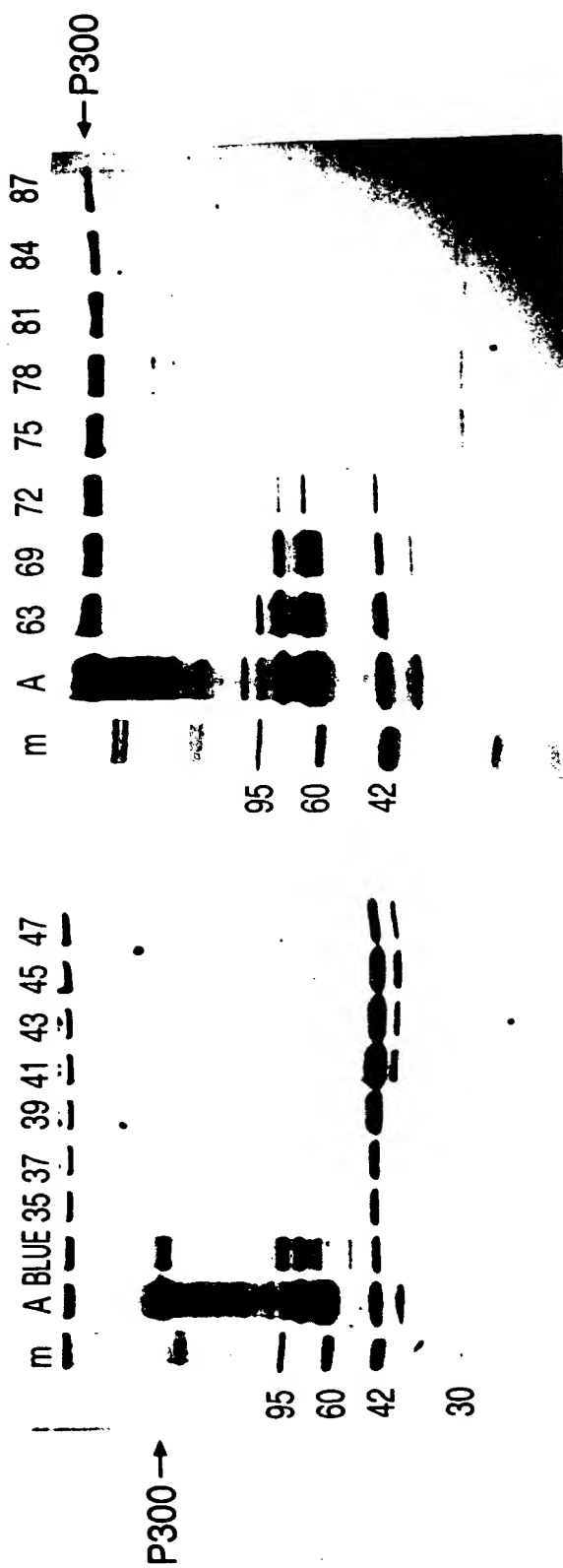
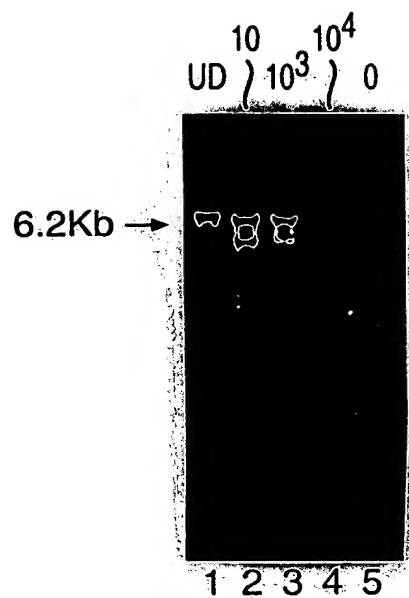


FIG. 32A

FIG. 32B



**FIG. 33**

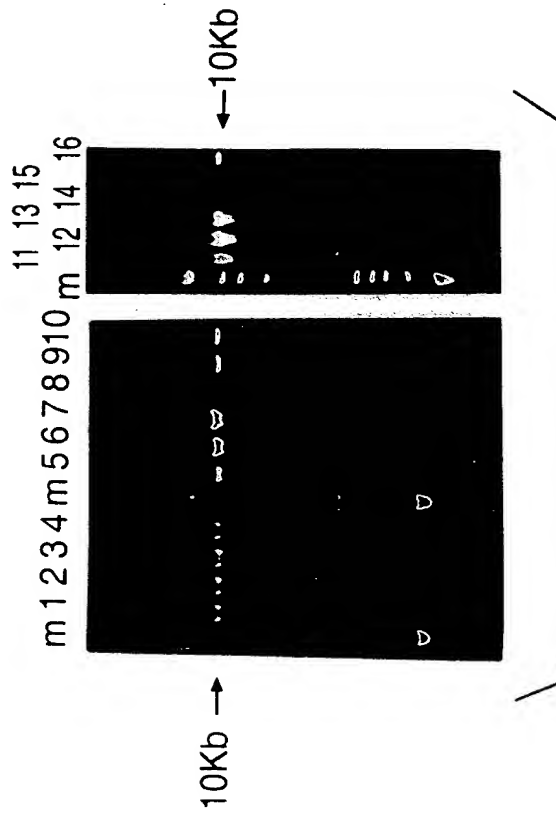
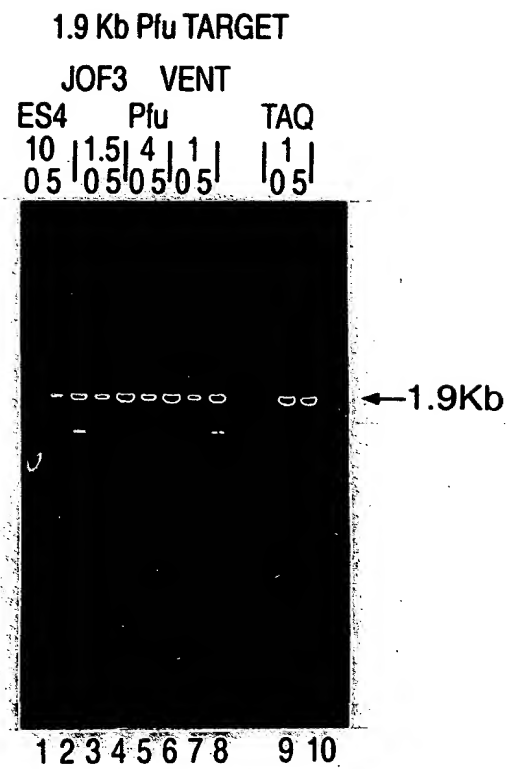


FIG. 34



**FIG. 35**

DEEP VENT USING 0.75u

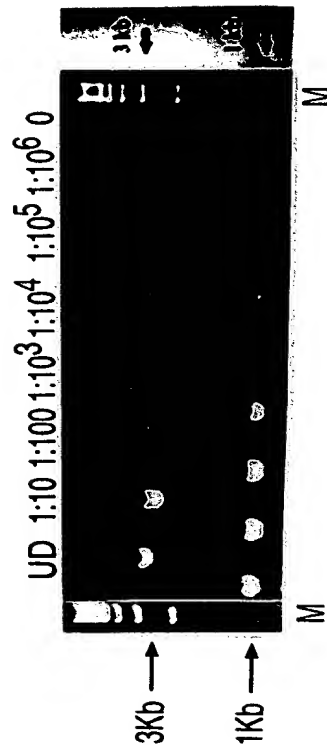
0 1 5 10



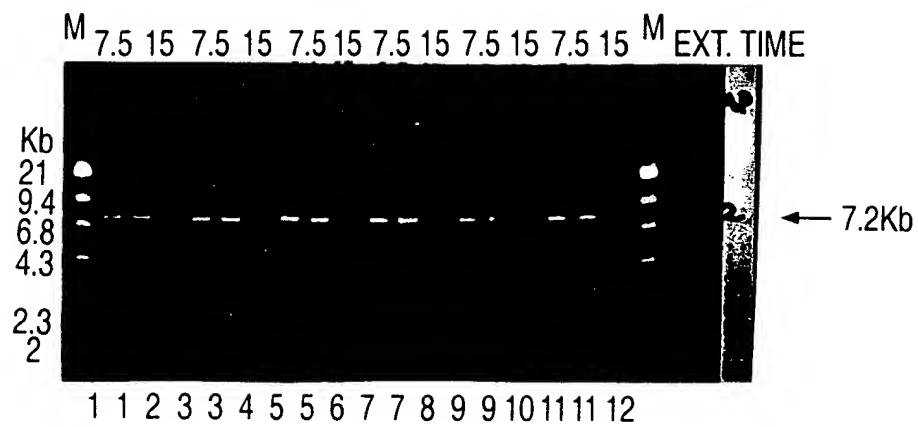
← 2Kb

1 2 3 4

**FIG. 36**



**FIG. 37**



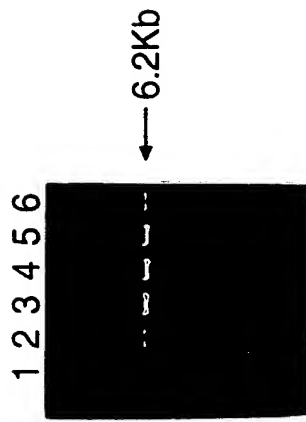
**FIG. 38**

## Pfu "PCR ENHANCER" IN QUICKCHANGE MUTAGENESIS

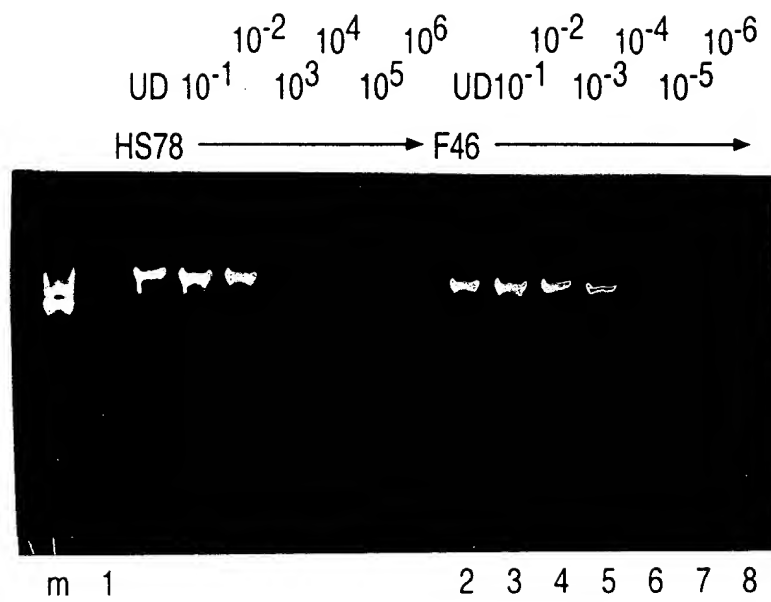
LINEAR AMPLIFICATION CONDITIONS				TRANSFORMATION RESULTS	
<u>POL.</u>	<u>BUFFER</u>	<u>H.S. #75</u>	<u>AMPL. PROD.</u>	<u>#cfu</u>	<u>%MUTANTS</u>
nPfu (#38)	nPfu	0	+	84	95
		1 $\mu$ 1	$\pm$	47	87
		.1 $\mu$ 1	+	154	97
		.01 $\mu$ 1	++	632	95
		.001 $\mu$ 1	+	484	94
nPfu (#24A)	nPfu	0	+	94	89
		1 $\mu$ 1	+	34	85
		.1 $\mu$ 1	+	173	91
		.01 $\mu$ 1	++	468	96
		.001 $\mu$ 1	+	230	90

**FIG. 39**

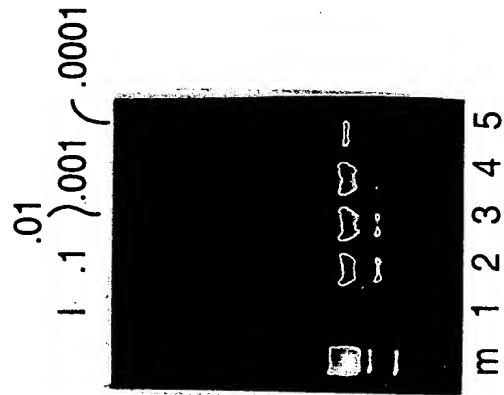




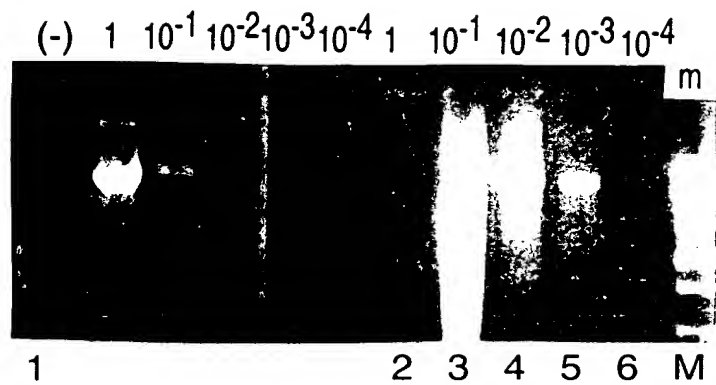
**FIG. 40**



**FIG. 41**



**FIG. 42**



**FIG. 43**



**FIG. 44A**

**FIG. 44B**

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☒ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**